

# Intel® Pentium® 4 Processor and Microsoft® Windows® XP Professional

## The New Platform for Business Computing



The Pentium 4 Processor and Windows XP Professional provide businesses with:

- Outstanding productivity in multitasking environments
- Optimized use of emerging technologies
- Exceptional reliability, stability and manageability

Talk about a one-two punch. The Intel® Pentium® 4 processor delivers breakthrough performance for today's multitasking environments and tomorrow's newest technologies. Microsoft® Windows® XP Professional offers advanced features tailored to the demands of a fast-paced, interconnected business world. Together, they're a knock-out combination that can make your PCs more powerful, your employees more productive, your infrastructure more robust — even help your company become more profitable. And, with Windows XP Professional features optimized for the Pentium 4 processor, your business gets more out of this advanced operating system when you choose the Pentium 4 processor as your computing platform.

### Power for a Multitasking Environment

Face it. Business is more deadline-driven than ever. Information bombards us from all sides. To keep up, employees jump among numerous applications, each more compute-intensive than the last.

The Windows XP Professional new Preemptive Multitasking Environment is designed for this trend, improving system response times and stability when multiple applications run simultaneously. Windows XP Professional also adds to the multitasking workload, as it runs a wide range of manageability and security features as transparent background tasks.

With clock speeds of 2.0 GHz and rising, the Pentium 4 processor with all new Intel® NetBurst™ Micro-architecture offers high-powered support for multitasking envi-

ronments. A new and ultra-sophisticated Rapid Execution Engine, hyper-pipelined technologies and a 400 MHz system bus — triple the speed of the Intel® Pentium® III processor's bus — keep the system highly responsive even when users run multiple foreground applications and background tasks. This advanced architecture produces measurable improvements in productivity. And by providing desktop power for background processing, it helps the entire infrastructure run more efficiently and securely.

### Why Choose the Intel® Pentium® 4 Processor and Windows® XP Professional for Your Business Desktop?

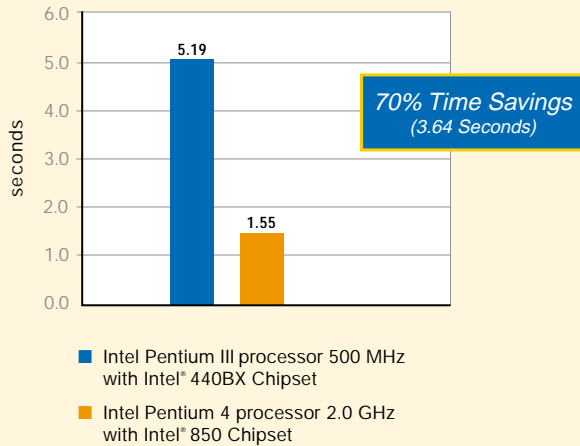
- Powerful hardware and software architectures deliver ultra-responsive user experience, even with heavy multitasking.
- With outstanding performance, plus built-in software support, you're primed to make the most of Extensible Markup Language (XML), Web services, peer-to-peer collaboration and other emerging technologies.
- Windows XP Professional with Intel Pentium 4 processor-specific optimizations give an added boost to 3D rendering, security and networking.
- Intel's renowned stability and reliability plus Windows XP Professional's dependability enhancements create a rock-solid foundation for business computing.
- Increase manageability with Windows XP Professional's new management tools and Pentium 4 processor's power to run them without slowing user productivity.
- Enjoy awesome performance and quality on new, Windows XP Professional-enabled rich media capabilities such as Windows Messenger.



Your business gets more out of Windows® XP Professional when you choose the Intel® Pentium® 4 Processor.

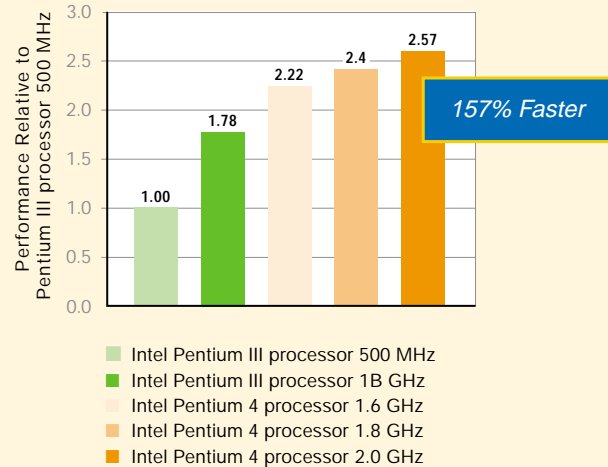
#### Response Time Savings on SYSMark® 2001 with the Intel® Pentium® 4 Processor

Compared to the Intel® Pentium® III Processor 500 MHz<sup>1</sup>



#### XML Performance on WebMark® 2001 for the Intel® Pentium® 4 Processor

Compared to the Intel® Pentium® III Processor 500 MHz<sup>2</sup>



### Power for Emerging Technologies

Extensible Markup Language (XML), peer-to-peer computing, rich visual collaboration tools — they're just a few of the many emerging technologies and usage models that are generating a wealth of new services and capabilities for today's business PC users.

Windows XP Professional supports these technologies and takes full advantage of them. XML-based Web services such as Remote Assistance and the Web Publishing Wizard enhance user productivity and business effectiveness. Windows® Media Player® makes it easier to incorporate digital media into business activities, and Windows XP Professional's intrinsic support for peer-to-peer networking gives businesses greater flexibility in adopting this model.

The Pentium 4 processor's Intel NetBurst Micro-architecture delivers optimum performance for next-generation technologies. Compared to a Pentium III processor at 500 MHz, a Pentium 4 processor at 2.0 GHz delivers 157 percent faster parsing of XML and encoding increases of 229 percent<sup>2</sup> for Windows Media Encoder. Users can more quickly take advantage of advanced services, and rich visual applications look, sound and perform their best.

### Power for a Robust Environment

What's worse than a blue screen when you're facing a tough deadline? Windows XP Professional extends Windows® 2000's already high reliability with advances ranging from improved file protection to a new Windows® Installer. These new features work together to deliver a dependable computing experience, minimize user reboots, reduce deployment headaches and enhance the enterprise's security and manageability.

The Pentium 4 processor provides superb reliability founded on Intel's standard-setting expertise in chip design, development, manufacturing, validation and testing. Intel works with major PC manufacturers to offer transition guidance that helps businesses plan for easy, cost-effective technology transitions.

Together, Windows XP Professional and the Pentium 4 processor are designed to enhance the productivity of users and IT staff alike with powerful technologies that can give your business a competitive edge.

Learn more. Visit us at:

[www.intel.com/eBusiness/products/desktop](http://www.intel.com/eBusiness/products/desktop)

Windows® XP Professional Provides...	Intel® Pentium® 4 Processor Delivers...	So Your Business Can...
<ul style="list-style-type: none"> <li>▪ Preemptive multitasking architecture</li> </ul>	<ul style="list-style-type: none"> <li>▪ Performance to keep systems responsive even when users run several demanding applications simultaneously</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enhance employee productivity</li> <li>▪ Maximize system longevity</li> </ul>
<ul style="list-style-type: none"> <li>▪ Peer-to-peer networking support</li> </ul>	<ul style="list-style-type: none"> <li>▪ Power to host applications and files efficiently without draining system responsiveness</li> </ul>	<ul style="list-style-type: none"> <li>▪ Make better use of enterprise-wide computing resources</li> </ul>
<ul style="list-style-type: none"> <li>▪ Web services and .NET services based on native XML and SOAP support</li> </ul>	<ul style="list-style-type: none"> <li>▪ Superb performance at parsing XML statements</li> <li>▪ Power to run Web services along with other user tasks</li> </ul>	<ul style="list-style-type: none"> <li>▪ Realize outstanding performance productivity for capabilities such as Remote Assistance, Windows Messenger, and the Web Publishing Wizard</li> </ul>
<ul style="list-style-type: none"> <li>▪ Comprehensive digital media activities under a single, easy-to-use umbrella — Windows® Media Player® 8</li> <li>▪ 3D graphics optimized for the Intel® Pentium® 4 processor</li> </ul>	<ul style="list-style-type: none"> <li>▪ Powerful Intel® NetBurst™ Micro-architecture and expanded Streaming SIMD Extensions-2 (SSE-2) instructions deliver breakthrough performance for digital media speed and quality</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enhance productivity</li> <li>▪ Enjoy high quality audio and video experiences</li> <li>▪ Benefit from improved decision making with business analysis and visualization tools</li> <li>▪ Use digital media to communicate effectively, train employees, improve customer service and more</li> </ul>
<ul style="list-style-type: none"> <li>▪ Windows Messenger for advanced collaboration with real-time audio- and video-conferencing, application sharing and text-based chat</li> </ul>	<ul style="list-style-type: none"> <li>▪ Intel NetBurst Micro-architecture and SSE-2 instructions enhance video and audio decoding and other visually rich software</li> </ul>	<ul style="list-style-type: none"> <li>▪ Enhance productivity</li> <li>▪ Use digital media more easily and effectively</li> <li>▪ Experience higher quality PC-to-PC phone calls</li> <li>▪ Collaborate more effectively with supply chain partners, customers</li> </ul>
<ul style="list-style-type: none"> <li>▪ Operating system support for applications that use SSE and SSE-2 instructions</li> </ul>	<ul style="list-style-type: none"> <li>▪ 144 new SSE-2 instructions optimized for next-generation tools and technologies</li> </ul>	<ul style="list-style-type: none"> <li>▪ Fully benefit from popular business software designed to use advanced Pentium 4 processor features</li> </ul>
<ul style="list-style-type: none"> <li>▪ Encrypting File System (EFS), IPsec, Public Key Infrastructure (PKI) and Kerberos support</li> </ul>	<ul style="list-style-type: none"> <li>▪ Special instructions to speed 128-bit integer operations typically used in encryption, authentication and other security-related capabilities</li> </ul>	<ul style="list-style-type: none"> <li>▪ Protect corporate data and resources</li> <li>▪ Reduce the risk of data theft</li> <li>▪ Run background security tasks on the desktop without affecting user productivity</li> </ul>
<ul style="list-style-type: none"> <li>▪ Reliability features such as improved code correction, Windows file protection and reduced reboot scenarios</li> </ul>	<ul style="list-style-type: none"> <li>▪ State-of-the-art design, manufacturing, validation and test facilities for outstanding system availability and lower support costs</li> </ul>	<ul style="list-style-type: none"> <li>▪ Avoid disruptions and improve user experience</li> </ul>
<ul style="list-style-type: none"> <li>▪ Manageability enhancements like Remote Desktop, System Restore, and Recovery Console</li> </ul>	<ul style="list-style-type: none"> <li>▪ Power to run management tools in the background while maintaining performance on users' foreground applications</li> <li>▪ Built-in support for industry-standard manageability features such as ACPI, LAN-based remote wake-up and pre-boot execution environment (PXE)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improve manageability</li> <li>▪ Minimize downtime and boost productivity</li> <li>▪ Reduce total cost of ownership (TCO)</li> </ul>
<ul style="list-style-type: none"> <li>▪ Enhanced device driver verifier and Windows® Installer</li> </ul>	<ul style="list-style-type: none"> <li>▪ Platform elements optimized for compatibility and stability</li> </ul>	<ul style="list-style-type: none"> <li>▪ Reduce support costs by qualifying and deploying new client systems more efficiently and minimizing disruptive transitions</li> </ul>



<sup>1</sup>Source: Intel. Configuration: *Intel® Pentium® 4 processor at 2 GHz*: Intel® Desktop Board D850GB, 256 MB PC800 RDRAM-45; Intel® Ultra ATA Storage Driver v6.10, Intel® chipset INF file v2.90.001, Intel C and Fortran compilers 5.01 for SPEC; IBM® 30 GB ATA-100 DTLA-307030 Hard Drive, Leadtek® WinFast GeForce3®/nVidia® GeForce3 4x AGP Graphics, nVidia® Detonator® v1241 Graphics Driver, DirectX® 8.0a, Windows® 2000 (build 2195), 100 Mbps Intel® PRO/100+ Management PCI LAN Card. *Intel® Pentium® III processor at 500 MHz*: Intel® Desktop Board SE440BX-2, 128 MB PC100 CL2 SDRAM, Diamond Viper 550/nVidia® TNT 2x AGP w/16 MB memory, IBM® DTTA-301010 10 GB ATA-33 hard drive, nVidia® Detonator 3® v4.12.01.0631 graphics driver, DirectX® 8.0, 100 Mbps LAN, DMA on, Intel® chipset INF file N/A, Intel C and Fortran compilers 5.0 for SPEC, Apple® QuickTime® 4.1.1

<sup>2</sup>Source: Intel. Configuration: *Intel® Pentium® III processor at 1B GHz*: Intel® Desktop Board D815EA; 128 MB PC133 CL2 SDRAM; *Intel® Pentium® 4 processor platforms*: Intel® Desktop Board GB850, 128 MB PC800-45 RDRAM, Creative Annihilator® 2/nVidia® GeForce 2 GTS 4x with 32 MB DDR memory, 1024x768 at 16-bit color, IBM® DTLA-307030 30 GB ATA-100, Intel® Ultra ATA 6.03, Intel® INF 2.60.001, Windows® 2000 (build 2195), FAT32 partition, 32-bit file system with Service Pack 1 installed, Toshiba® 32x XM-6302B IDE CD-ROM drive, Intel® PRO/100+ Management PCI LAN card, SoundBlaster® LIVE®. *Intel® Pentium® III processor at 500 MHz*: Intel® Desktop Board SE440BX-2, 128 MB PC100 CL2 SDRAM, Diamond Viper 550/nVidia TNT 2x AGP w/16 MB memory, 1024x768 at 16-bit color, IBM DTTA-301010 10 GB ATA-33, DMA on, Windows 2000 (build 2195), FAT32 partition, 32-bit file system with Service Pack 1 installed, Toshiba® 32x XM-6302B IDE CD-ROM Drive, Intel® PRO/100+ Management PCI LAN card, integrated sound

Intel® Pentium® III processors ending in the letter B support the 133 MHz system bus.

Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of Intel products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance.

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